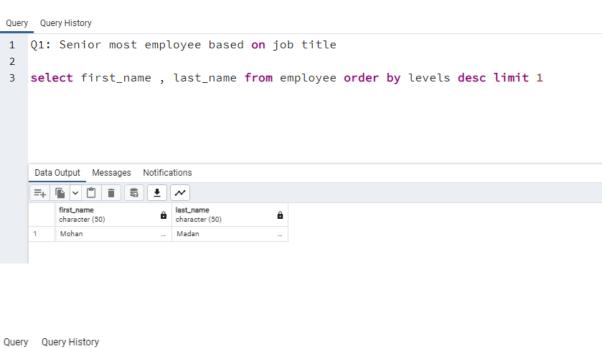
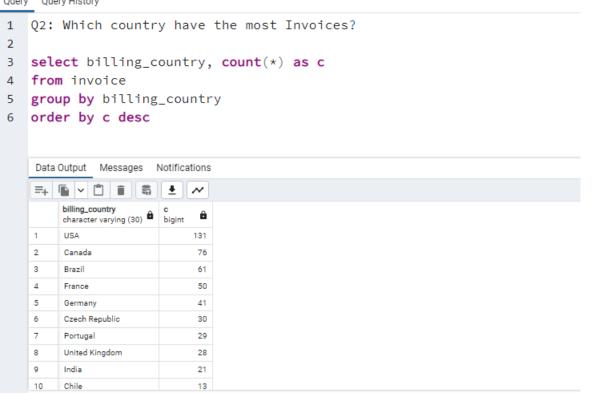
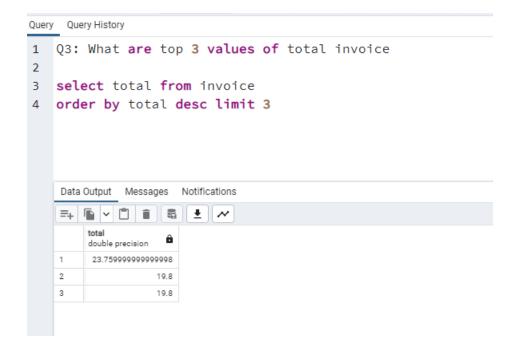
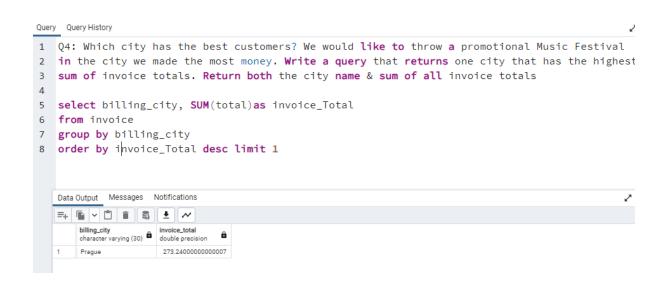
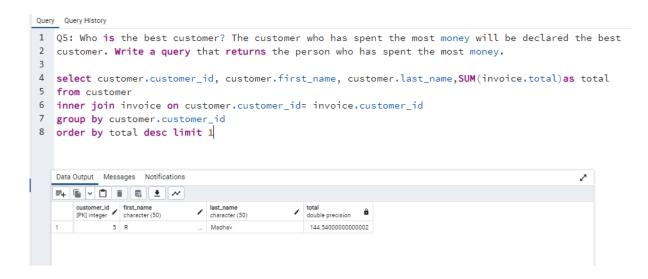
In this analysis is performed to get the insights from the data. Below mentioned are the queries through which analysis is performed.

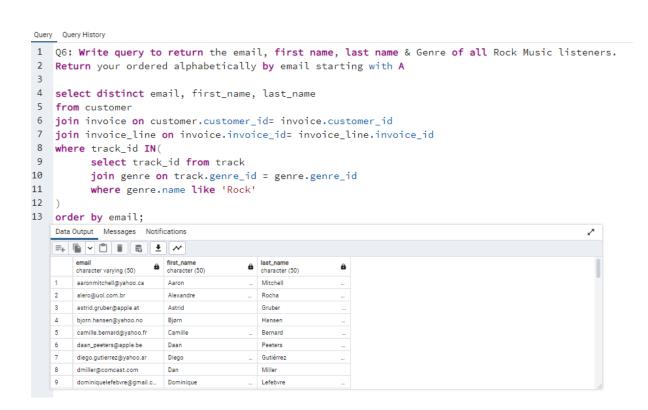


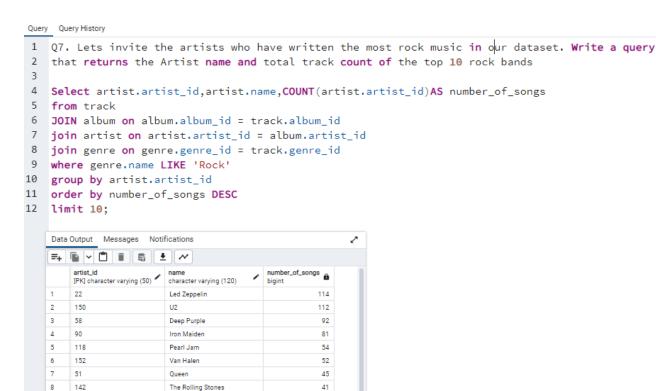






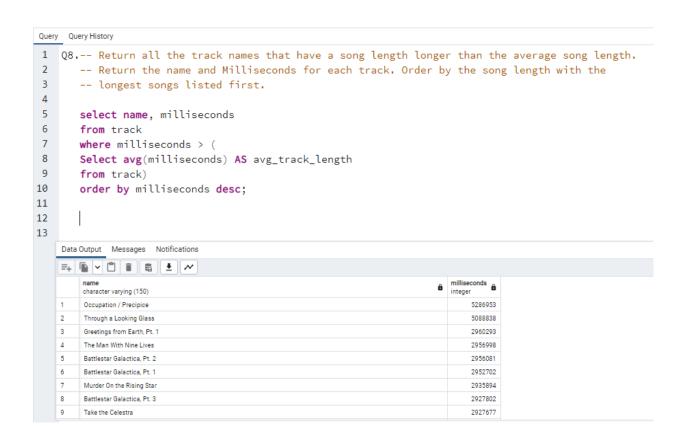






Creedence Clearwater Revival

76



```
Query Query History
1 Q9. --Find how much amount spent by each customer on artists? Write a query to return customer
        --name, artist name and total spent
3
 4 With best_selling_artist AS(
 5
      select artist.artist_id as artist_id, artist.name as artist_name,
 6
      SUM(invoice_line.unit_price*invoice_line.quantity)AS total_sales
7
      FROM invoice_line
 8
      JOIN track ON track.track_id = invoice_line.track_id
 9
      JOIN album ON album.album_id = track.album_id
10
      JOIN artist ON artist.artist_id = album.artist_id
      GROUP BY 1
11
12
      ORDER BY 3 DESC
13
      LIMIT 1
14 )
15 SELECT c.customer_id, c.first_name, c.last_name, bsa.artist_name,
16 SUM(il.unit_price*il.quantity)AS amount_spent
17 FROM invoice i
18 JOIN customer c ON c.customer_id = i.customer_id
19  JOIN invoice_line il ON il.invoice_id = i.invoice_id
20
   JOIN track t ON t.track_id = il.track_id
21 JOIN album alb ON alb.album_id = t.album_id
22 JOIN best_selling_artist bsa ON bsa.artist_id = alb.artist_id
23 GROUP BY 1,2,3,4
24 ORDER BY 5 DESC;
25
```

D										
_	Data Output Messages Notifications									
=+	<b>弄 ┗ ▽ □ ■ ■ ±   ~</b>									
	customer_id integer	first_name character (50)	last_name character (50)	artist_name character varying (120)	amount_spent double precision					
1	46	Hugh	O'Reilly	Queen	27.71999999999985					
2	38	Niklas	Schröder	Queen	18.81					
3	3	François	Tremblay	Queen	17.82					
4	34	João	Fernandes	Queen	16.8300000000000002					
5	53	Phil	Hughes	Queen	11.88					
6	41	Marc	Dubois	Queen	11.88					
7	47	Lucas	Mancini	Queen	10.89					
8	33	Ellie	Sullivan	Queen	10.89					
9	20	Dan	Miller	Queen	3.96					
10	5	R	Madhav	Queen	3.96					
11	23	John	Gordon	Queen	2.969999999999998					
12	54	Steve	Murray	Queen	2.969999999999998					
13	31	Martha	Silk	Queen	2.969999999999998					
14	16	Frank	Harris	Queen	1.98					
15	17	Jack	Smith	Queen	1.98					
16	24	Frank	Ralston	Queen	1.98					
17	30	Edward	Francis	Queen	1.98					
18	35	Madalena	Sampaio	Queen	1.98					
19	36	Hannah	Schneider	Queen	1.98					
20	11	Alexandre	Rocha	Queen	1.98					
21	8	Daan	Peeters	Queen	1.98					
22	42	Wyatt	Girard	Queen	1.98					
23	44	Terhi	Hämäläinen	Queen	1.98					
24	1	Luís	Goncalves	Oueen	1 02					

```
Q10. -- We want to find out the most popular music Genre for each country (We determine the most popular genre
     -- as the genre with the highest amount of purchases). Write a query that returns each country along with
     -- the top Genre. For countries where the maximum number of purchases is shared return all Genres
With RECURSIVE
    {\tt sales\_per\_country}~{\tt AS}(
      \textbf{SELECT COUNT}(\star) \hspace{0.1cm} \textbf{AS purchases\_per\_genre, customer.country, genre.name, genre\_genre\_id}
      FROM invoice_line
      JOIN invoice ON invoice.invoice_id = invoice_line.invoice_id
      JOIN customer ON customer.customer_id = invoice.customer_id
      JOIN track on track.track_id = invoice_line.track_id
      JOIN genre ON genre.genre_id = track.genre_id
      GROUP BY 2,3,4
      ORDER BY 2
    ),
    \verb|max_genre_per_country| AS (SELECT MAX(purchases_per_genre)| AS | max_genre_number, country| \\
        FROM sales_per_country
        GROUP BY 2
        ORDER BY 2)
SELECT sales_per_country.*
FROM sales_per_country
JOIN max_genre_per_country ON sales_per_country.country = max_genre_per_country.country
WHERE sales_per_country.purchases_per_genre = max_genre_per_country.max_genre_number
```

## Data Output Messages Notifications

=+		<u>+</u> ~			
	purchases_per_genre bigint	country character varying (50)	name character varying (120)	genre_id character varying (50)	
1	17	Argentina	Alternative & Punk	4	
2	34	Australia	Rock	1	
3	40	Austria	Rock	1	
4	26	Belgium	Rock	1	
5	205	Brazil	Rock	1	
6	333	Canada	Rock	1	
7	61	Chile	Rock	1	
8	143	Czech Republic	Rock	1	
9	24	Denmark	Rock	1	
10	46	Finland	Rock	1	
11	211	France	Rock	1	
12	194	Germany	Rock	1	
13	44	Hungary	Rock	1	
14	102	India	Rock	1	
15	72	Ireland	Rock	1	
16	35	Italy	Rock	1	
17	33	Netherlands	Rock	1	
18	40	Norway	Rock	1	
19	40	Poland	Rock	1	
20	108	Portugal	Rock	1	
21	46	Spain	Rock	1	
22	60	Sweden	Rock	1	
23	166	United Kingdom	Rock	1	
24	561	USA	Rock	1	

```
Q11. --Write a query that determines the customer that has spent the most on music for each country.Write
    --a query that returns the country along with the top customer and how much they spent. For countries
    --where the top amount spent is shared, provide all customers who spent this amount.
With RECURSIVE
   customer_with_country AS (
   FROM invoice
   JOIN customer ON customer.customer_id = invoice.customer_id
   GROUP BY 1,2,3,4
   ORDER BY 1,5 DESC),
   country_max_spending AS (
   SELECT billing_country, MAX(total_spending) AS max_spending
   FROM customer_with_country
   GROUP BY billing_country)
SELECT cc.billing_country,cc.total_spending,cc.first_name,cc.last_name,cc.customer_id
FROM customer_with_country cc
JOIN country_max_spending ms
ON cc.billing_country = ms.billing_country
WHERE cc.total_spending = ms.max_spending
ORDER BY 1;
```

## Data Output Messages Notifications

=+		* ~			
	billing_country character varying (30)	total_spending double precision	first_name character (50)	last_name character (50)	customer_id integer
1	Argentina	39.6	Diego	Gutiérrez	56
2	Australia	81.18	Mark	Taylor	55
3	Austria	69.3	Astrid	Gruber	7
4	Belgium	60.3899999999999	Daan	Peeters	8
5	Brazil	108.8999999999998	Luís	Gonçalves	1
6	Canada	99.99	François	Tremblay	3
7	Chile	97.02000000000001	Luis	Rojas	57
8	Czech Republic	144.540000000000002	R	Madhav	5
9	Denmark	37.61999999999999	Kara	Nielsen	9
10	Finland	79.2	Terhi	Hämäläinen	44
11	France	99.99	Wyatt	Girard	42
12	Germany	94.05000000000001	Fynn	Zimmermann	37
13	Hungary	78.21	Ladislav	Kovács	45
14	India	111.86999999999999	Manoj	Pareek	58
15	Ireland	114.8399999999997	Hugh	O'Reilly	46
16	Italy	50.49	Lucas	Mancini	47
17	Netherlands	65.34	Johannes	Van der Berg	48
18	Norway	72.27000000000001	Bjørn	Hansen	4
19	Poland	76.2299999999999	Stanisław	Wójcik	49
20	Portugal	102.96000000000001	João	Fernandes	34
21	Spain	98.01	Enrique	Muñoz	50
22	Sweden	75.24	Joakim	Johansson	51
23	United Kingdom	98.01	Phil	Hughes	53
24	USA	98.01	Jack	Smith	17